

SEQUENCE LISTING

<110> Rea-Min Chu
Ching-Yi Lin
Ya-Wen Hsiao
Kuang-Wen Liao

<120> COMPLEX IMMUNO-GENE MEDICAL COMPOSITION FOR INHIBITING TUMOR CELLS

<130> P/741-176

<140> 10/798,096

<141> 2004-03-11

<160> 4

<210> 1

<211> 636

<212> DNA

<213> Human

<223> IL-6



<400> 1

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1				5					10					15					20	
gtg	ttg	cct	gct	gcc	ttc	cct	gcc	cca	gta	ccc	cca	gga	gaa	gat	tcc	aaa	gat	gta	gcc	120
Val	Leu	Pro	Ala	Ala	Phe	Pro	Ala	Pro	Val	Pro	Pro	Gly	Glu	Asp	Ser	Lys	Asp	Val	Ala	
				25					30					35					40	
gcc	cca	cac	aga	cag	cca	ctc	acc	tct	tca	gaa	cga	att	gac	aaa	caa	att	cgg	tac	atc	180
Ala	Pro	His	Arg	Gln	Pro	Leu	Thr	Ser	Ser	Glu	Arg	Ile	Asp	Lys	Gln	Ile	Arg	Tyr	Ile	
				45					50					55					60	
ctc	gac	ggc	atc	tca	gcc	ctg	aga	aag	gag	aca	tgt	aac	aag	agt	aac	atg	tgt	gaa	agc	240
Leu	Asp	Gly	Ile	Ser	Ala	Leu	Arg	Lys	Glu	Thr	Cys	Asn	Lys	Ser	Asn	Met	Cys	Glu	Ser	
				65					70					75					80	
agc	aaa	gag	gca	ctg	gca	gaa	aac	aac	ctg	aac	ctt	cca	aag	atg	gct	gaa	aaa	gat	gga	300
Ser	Lys	Glu	Ala	Leu	Ala	Glu	Asn	Asn	Leu	Asn	Leu	Pro	Lys	Met	Ala	Glu	Lys	Asp	Gly	
				85					90					95					100	
tgc	ttc	caa	tct	gga	ttc	aat	gag	gag	act	tgc	ctg	gtg	aaa	atc	atc	act	ggg	ctt	ttg	360
Cys	Phe	Gln	Ser	Gly	Phe	Asn	Glu	Glu	Thr	Cys	Leu	Val	Lys	Ile	Ile	Thr	Gly	Leu	Leu	
				105					110					115					120	
gag	ttt	gag	gta	tac	cta	cag	tac	ctc	cag	aac	aga	ttt	gag	agt	agt	gag	gaa	caa	gcc	420
Glu	Phe	Glu	Val	Tyr	Leu	Glu	Tyr	Leu	Gln	Asn	Arg	Phe	Glu	Ser	Ser	Glu	Glu	Gln	Ala	
				125					130					135					140	
aga	gct	gtg	cag	atg	agt	aca	aaa	gtc	ctg	atc	cag	ttc	ctg	cag	aaa	aag	gca	aag	aat	480
Arg	Ala	Val	Gln	Met	Ser	Thr	Lys	Val	Leu	Ile	Gln	Phe	Leu	Gln	Lys	Lys	Ala	Lys	Asn	
				145					150					155					160	
cta	gat	gca	ata	acc	acc	cct	gac	cca	acc	aca	aat	gcc	agc	ctg	ctg	acg	aag	ctg	cag	540
Leu	Asp	Ala	Ile	Thr	Thr	Pro	Asp	Pro	Thr	Thr	Asn	Ala	Ser	Leu	Leu	Thr	Lys	Leu	Gln	
				165					170					175					180	
gca	cag	aac	cag	tgg	ctg	cag	gac	atg	aca	act	cat	ctc	att	ctg	cgc	agc	ttt	aag	gag	600
Ala	Gln	Asn	Gln	Trp	Leu	Gln	Asp	Met	Thr	Thr	His	Leu	Ile	Leu	Arg	Ser	Phe	Lys	Glu	
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ttc	ctg	cag	tcc	agc	ctg	agg	gct	ctt	cgg	caa	atg									636
Phe	Leu	Gln	Ser	Ser	Leu	Arg	Ala	Leu	Arg	Gln	Met									
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00662125.TXT

<210> 2
 <211> 60
 <212> DNA
 <213> Human
 <223> IL-2 Signal Peptide

<400> 2

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<210> 3
 <211> 342
 <212> DNA
 <213> Human
 <223> Partial Sequence Encoding Human IL-15

<400> 3

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1          5          10         15         20

att gat gct act tta tat acg gaa agt gat gtt cac ccc agt tgc aaa gta aca gca atg 120
Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His Pro Ser Cys Lys Val Thr Ala Met
          25         30         35         40

aag tgc ttt ctc ttg gag tta caa gtt att tca ctt gag tcc gga gat gca agt att cat 180
Lys Cys Phe Leu Leu Glu Leu Gln Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His
          45         50         55         60

gat aca gta gaa aat ctg atc atc cta gca aac aac agt ttg tct tct aat ggg aat gta 240
Asp Thr Val Glu Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
          65         70         75         80

aca gaa tct gga tgc aaa gaa tgt gag gaa ctg gag gaa aaa aat att aaa gaa ttt ttg 300
Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile Lys Glu Phe Leu
          85         90         95         100

cag agt ttt gta cat att gtc caa atg ttc atc aac act tct
Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn Thr Ser
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<210> 4
 <211> 402
 <212> DNA
 <213> Artificial Sequence
 <220> Bases 1-60 Code for IL-2 Signal Peptide
 <223> Artificial Chimeric Sequence Encoding IL-2SP/IL-15MP

<400> 4

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Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu Val Thr Asn Ser
1          5          10         15         20

aac tgg gtg aat gta ata agt gat ttg aaa aaa att gaa gat ctt att caa tct atg cat 120
Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser Met His
          25         30         35         40
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00662125.TXT

att	gat	gct	act	tta	tat	acg	gaa	agt	gat	gtt	cac	ccc	agt	tgc	aaa	gta	aca	gca	atg	180
Ile	Asp	Ala	Thr	Leu	Tyr	Thr	Glu	Ser	Asp	Val	His	Pro	Ser	Cys	Lys	Val	Thr	Ala	Met	
				45					50					55					60	
aag	tgc	ttt	ctc	ttg	gag	tta	caa	gtt	att	tca	ctt	gag	tcc	gga	gat	gca	agt	att	cat	240
Lys	Cys	Phe	Leu	Leu	Glu	Leu	Gln	Val	Ile	Ser	Leu	Glu	Ser	Gly	Asp	Ala	Ser	Ile	His	
				65					70					75					80	
gat	aca	gta	gaa	aat	ctg	atc	atc	cta	gca	aac	aac	agt	ttg	tct	tct	aat	ggg	aat	gta	300
Asp	Thr	Val	Glu	Asn	Leu	Ile	Ile	Leu	Ala	Asn	Asn	Ser	Leu	Ser	Ser	Asn	Gly	Asn	Val	
				85					90					95					100	
aca	gaa	tct	gga	tgc	aaa	gaa	tgt	gag	gaa	ctg	gag	gaa	aaa	aat	att	aaa	gaa	ttt	ttg	360
Thr	Glu	Ser	Gly	Cys	Lys	Glu	Cys	Glu	Glu	Leu	Glu	Glu	Lys	Asn	Ile	Lys	Glu	Phe	Leu	
				105					110					115					120	
cag	agt	ttt	gta	cat	att	gtc	caa	atg	ttc	atc	aac	act	tct							402
Gln	Ser	Phe	Val	His	Ile	Val	Gln	Met	Phe	Ile	Asn	Thr	Ser							
				125					130											